Remarks:

The amendments and remarks presented herein are believed to be fully responsive to the Office Action dated July 20, 2006.

Claims 1-12, 15-34, 51-63 are pending in the application. Claims 13, 14 and 35-50 have been canceled without prejudice and claims 1, 4, 8, 15, 19, 33, 34, 51, 52, 54, 57 and 58 have been amended as set forth above. The amendments are fully supported in the specification and drawings as originally filed. No new matter has been added.

ALLOWABLE CLAIMS

Claims 33, 57 and 63 were indicated as being drawn to allowable subject matter and as being allowable if rewritten in independent form. Applicants have amended claims 33 and 57 to be in independent form so that claims 33, 57 and 63 are in condition for allowance. Applicants have also amended dependent claim 58 to depend from allowable and now independent claim 57, such that claims 58 and 59 are also in condition for allowance.

CLAIM OBJECTIONS

Claims 15-18 were objected to under 35 CFR 1.75(c) as being in improper form. Applicants have amended claim 15 to be dependent on independent claim 1 to obviate this objection.

CLAIM REJECTIONS

Claims 1-4, 7, 8, 11 and 12 were rejected under 35 U.S.C. §102(b) as being anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Troupos et al., U.S. Patent Publication No. US 2002/0092734. Claims 5, 6, 9, 10, 20, 21, 26 and 27 were rejected under 35 U.S.C. §103(a) as being unpatentable over Troupos et al., in view of Yu, U.S. Patent No. 4,746,003, and further in view of Isaacs, U.S. Patent No. 6,484,886, while claims 19, 22-25 and 28-30 were rejected under 35 U.S.C. §103(a) as being unpatentable over Troupos et al., in view of Yu. Claims 31, 32, 51, 56 and 60-62 were rejected under 35 U.S.C. §103(a) as being unpatentable over Troupos et al., in view of Yu, and further in view of Kloosterhouse, U.S. Patent No. 4,962,841, while claims 34, 52-55, 58 and 59 were rejected

under 35 U.S.C. §103(a) as being unpatentable over Troupos et al., in view of Yu and Kloosterhouse, and further in view of Itoh, U.S. Patent No. 6,360,869.

Applicant respectfully traverses the rejections under 35 U.S.C. §102(b) and §103(a) for the reasons set forth below.

Applicant has amended independent claim 1 to clarify that the roller conveyor has a first conveyor section and a second conveyor section. The first conveyor section includes a plurality of idler rollers mounted to the sidewalls and arranged to convey articles along the first conveyor section in a first direction of conveyance. Actuation of the first self-driven roller of the transverse drive system of the first conveyor section drives the idler rollers via the respective drive members to convey articles in the first direction of conveyance. The roller conveyor includes a right angle transfer unit at the first conveyor section that includes a second self-driven roller. The second self-driven roller and the first self-driven roller are independently operable. The second conveyor section comprises a pair of opposite sidewalls and a plurality of rollers mounted to the opposite sidewalls. The second conveyor section is positioned adjacent to the first conveyor section. The plurality of rollers are rotatably driven via a third self-driven roller. The third self-driven roller of the second conveyor section and the first self-driven roller of the first conveyor section are independently operable to convey articles in the first direction of conveyance.

Applicants have also amended independent claim 19 to clarify that the motorized rollers of the at least two tandem zones are independently operable to drive the drive members to rotatably drive the at least some of the plurality of rollers of the respective ones of the at least two tandem zones.

Applicants have also amended independent claim 51 to clarify that the plurality of rollers are rotatably driven via a first motorized roller to convey articles in a first direction of conveyance generally along the opposite sidewalls. The belts are driven via a second motorized roller, which is mounted to the movable portion. The belts are driven by the second motorized roller to convey articles in the second direction of conveyance when the belts are raised.

Applicants respectfully submit that Troupos et al. does not disclose or suggest the roller conveyor or right angle transfer unit of the claimed invention. Troupos et al. discloses a right angle power transfer with a single, common drive shaft (34) extending between conveyor sections (12, 14) and operable to drive both the input and output rollers (48, 50) via belts (82) and the sheaves (64) via belts (68). The drive shaft is described as being a common drive shaft that drives the rollers of conveyor section 12 and conveyor section 14 (see paragraph [0043] of Troupos et al.) and that drives the rollers 48, 50 and 60 of the transfer assembly 10 (see paragraph [0048] of Troupos et al.). Thus, a single drive shaft (which extends along the conveyor sections (12, 14) and along the transfer unit) drives the rollers of the transfer unit and the sheaves of the transfer unit so that a single drive motor can drive all of the rollers and belts together. The common drive shaft (34, 34' and 70) thus functions to continuously drive the rollers 18 and 20 of the conveyor sections 12 and 14 and the rollers 48, 50 and belts 68 of the transfer assembly 10 (see paragraphs [0048] and [0049] of Troupos et al.). Further, the belts of the Troupos et al. transfer unit are raised via actuators (90, 92), such as pneumatic actuators or hydraulic actuators, while the common drive shaft is rotatably, but non-movably, mounted along the sidewalls of the conveyor sections 12, 14 and transfer assembly 10.

In stark contrast to the power transfer of Troupos et al., the claimed invention of independent claim 1 includes a first self-driven roller for rotatably driving the rollers of a first conveyor section of the conveyor and a second self-driven roller for driving the belts and wheels of the transfer unit of the first conveyor section of the conveyor. The conveyor further includes a third self-driven roller at a second conveyor section of the conveyor, whereby the third self-driven roller and the first self-driven roller are independently operable, while the second self-driven roller and the first self-driven roller are independently operable. The second self-driven roller is mounted to the movable portion of the transfer unit. The present invention thus provides separate self-driven rollers for driving the rollers of the unit and the wheels and belts of the unit. To the contrary, the wheels/sheaves and belts of Troupos et al. are driven by the same or common drive shaft that continuously drives the rollers of the different zones or conveyor sections or units of Troupos et al.

By providing separate self-driven rollers as achieved by the present invention (such as claimed in independent claim 1), the transfer belts and wheels may be independently

driven in either direction without affecting the flow of material along the conveyor section or sections. This is in stark contrast to the single or common drive shaft system of Troupos et al., which drives the belts and rollers together via a single line-shaft. Moreover, Troupos et al. actually teaches away from such independently driven conveyor units by teaching that the common line shaft functions to continuously drive the rollers of the conveyor sections and the belts of the transfer unit. The Office Action states that "replacing a driven roller with a motorized roller is not novel." However, Applicants submit that replacing a common line shaft conveyor that extends along multiple zones or conveyor units with multiple, independently operable motorized rollers is novel and certainly is not shown or disclosed or suggested in Troupos et al. or any other of the references cited of record.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference or references when combined must teach or suggest all the claimed limitations. The teaching or suggestion to make the claim combination and reasonable expectation of success must both be found in the prior art and not based on Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). *See* MPEP § 2143.

Therefore, Applicants respectfully submit that Troupos et al. does not disclose or suggest the conveyor of the present invention, particularly as set forth in independent claim 1 and in the claims depending therefrom. Reconsideration and withdrawal of the rejection of claims 1, 2 and 4-18 is respectfully requested.

With respect to the rejection of independent claim 19 and the claims depending therefrom, Applicants respectfully submit that Troupos et al. does not disclose or suggest the roller conveyor of the claimed invention. The present invention, as claimed in independent claim 19, provides at least two tandem zones, with each zone having a transverse drive unit with a motorized roller positioned generally transverse to a plurality of idler rollers and a plurality of drive members connected between the motorized roller and at least some of the plurality of idler rollers. Each transversely mounted motorized roller has an internal motor that is

operable to rotate a roller portion of the motorized roller relative to an axle portion of the motorized roller, with the motorized rollers of each tandem zone being independently operable to drive the drive members to rotatably drive at least some of the plurality of rollers of the respective ones of the tandem zones. The claimed invention thus provides for separate control and driving of the idler rollers of the tandem zones via separate and independently operable transversely mounted motorized rollers.

In stark contrast to the claimed invention, Troupos et al. discloses a single common drive shaft that extends along adjacent sections of the conveyor to drive the rollers of the sections of the conveyor. There is no disclosure or suggestion in Troupos et al. of providing separate drive shafts and separate drive motors for independently driving the rollers of the conveyor sections. The Office Action refers to the Yu patent for support of this limitation. However, Yu discloses a sortation conveyor system having a belt roller 25 that is operable to rotatably drive a roller 44 (see column 2, lines 44-46 of Yu), which in turn rotatably drives rollers 53 and 54 (see column 2, lines 50-54 of Yu), which in turn drive the diverter wheels 60 (see column 3, lines 36-40 of Yu). Thus, the belt and the diverter wheels of Yu are correspondingly driven via rotational driving of the belt roller 25 and not independently operable. Moreover, the belt roller and the other rollers of Yu are oriented across the conveyor and not along or parallel to a sidewall of the conveyor.

Further, because the conveyor of Yu is a belt conveyor with a belt roller at an end of the belt conveyor, the conveyor of Yu is in stark contrast to the transverse drive roller conveyor of Troupos et al. Applicants thus submit that there is no suggestion or motivation to combine any teachings of Yu with the teachings of the line shaft roller conveyor of Troupos et al. "It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that '[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.'" *In re Fritch*, 23 U.S.P.Q.2d 1780, 1784 (Fed. Cir. 1992), quoting *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988). "We additionally note that a rejection based on Section 103 must rest on a factual basis, with the facts being interpreted without hindsight reconstruction of the invention from the prior art. In making this evaluation, the examiner has

the initial duty of supplying the factual basis for the rejection he advances. He may not, because he doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis." *Ex parte Haymond*, 41 U.S.P.Q.2d 1217, 1220 (BPAI 1996).

Moreover, Applicants submit that even if such an improper combination is made, the combination does not suggest or render obvious the claimed invention of independent claim 19, for at least all of the reasons set forth above. Further, Applicants respectfully submit that, if anything, the disclosure of Yu actually teaches away from providing separate transversely mounted and independently operable motorized rollers for independently controlling the rollers of each section or zone of a conveyor, such as set forth in independent claim 19. Reconsideration and withdrawal of the rejection of claims 19-32 and 34 is respectfully requested.

With respect to the rejection of independent claim 51 and the claims depending therefrom, Applicants respectfully submit that the combination of Troupos et al., Yu and Kloosterhouse does not disclose or suggest the right angle transfer unit of the claimed invention. For example, none of these references disclose or suggest a plurality of rollers that are rotatably driven via a first motorized roller to convey articles in a first direction of conveyance generally along the opposite sidewalls, nor do they disclose or suggest a plurality of belts of a transfer unit being driven via a second motorized roller mounted to the movable portion. The Office Action cites to Troupos et al. and Yu for support of many of the limitations. However, Applicants respectfully traverse the applicability of Troupos et al. and Yu for at least some of the reasons set forth above.

The Office Action also cites Kloosterhouse for support of a rotational drive motor operable to rotate a rotatable drive member, and wherein the rotatable drive member is rotatable to cause vertical movement of the movable portion relative to the base portion to raise the belts relative to the rollers such that the belt conveying surface is positioned above the roller conveying surface. Although Kloosterhouse mentions gear systems and cams as other means for vertically displacing the lift table, Applicants submit that the brief statement in Kloosterhouse relied on by the Examiner does not disclose or suggest the claimed invention, which includes a rotational drive motor operable to rotate a rotatable drive

member, which is rotatable to cause vertical movement of the movable portion relative to the base portion. Reconsideration and withdrawal of the rejection of claims 51-62 is respectfully requested.

Accordingly, Applicant respectfully submits that Troupos et al., either alone or in combination with any other prior art of record, does not disclose, teach, suggest or render obvious the conveyor or transfer unit of the present invention, particularly as set forth in independent claims 1, 19 and 51 and in the claims depending therefrom. Reconsideration and withdrawal of the rejections of claims 1-12, 15-17, 19-32, 34, 51, 55, 56 and 60-62 is respectfully requested.

Claims 1-12, 15-34 and 51-63 are pending in the application. Applicants respectfully submit that claims 1-12, 15-34 and 51-63 are in condition for allowance and a notice to that effect is earnestly and respectfully requested.

Respectfully submitted,
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